

DOCUMENT RESUME

ED 168 406

EE 011 099

AUTHOR Ray, Gordon N.
TITLE Trends in the Availability of Senior Fellowships in the United States, 1968-1977.
INSTITUTION John Simon Guggenheim Memorial Foundation, New York, N.Y.
PUB DATE Aug 78
NOTE 24p.; A preprint of the Report of the President, 1977

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Faculty Fellowships; Federal Aid; Federal Government; *Fellowships; *Grants; Higher Education; Nonprofit Organizations; *Post Doctoral Education; Private Financial Support
IDENTIFIERS Guggenheim Foundation NY; Philanthropic Foundations

ABSTRACT

Information is presented on senior fellowships awarded in the United States from 1968 to 1977. Applicants for Guggenheim fellowships were asked to provide information on the applications they made to other fellowship programs in order to identify the major senior fellowship programs. The definition of "senior" was more than five years beyond the Ph.D. or over 35 years of age. After the other fellowship programs were identified, the program directors were asked to provide, year by year since 1968, statistics concerning the number of grants made, the amount of money awarded, and the number of applications received. The replies are summarized under three headings: senior fellowships awarded by private foundations and learned societies, senior fellowships awarded by agencies of the federal government, and senior fellowships awarded by scholarly centers with residential programs. The overall figures show a steady growth in applications, fellowships, and amount of money until 1974, with some leveling off after that year. It is noted that there is an increasing proportion of senior faculty members, from among whom applicants for mid-career fellowships are drawn. The availability of sabbatical leave on part salary also affects the fellowship programs. Implications of the findings and an overview of the Guggenheim Foundation program are presented. For each year the number of fellowships, the amount of money awarded, and the average amount of money awarded are presented for individual agencies.
(SW)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED168406

Trends in the Availability of Senior Fellowships in the United States

1968 - 1977

GORDON N. RAY

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

John Simon
Guggenheim Memorial Foundation

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC) AND
USERS OF THE ERIC SYSTEM."

A preprint of the Report of the President, 1977

JOHN SIMON GUGGENHEIM MEMORIAL FOUNDATION

New York, N. Y.

August, 1978

HE 011 097

REPORT OF THE PRESIDENT

I

THE YEARS SINCE 1972 have been a difficult period for private philanthropy, as they have for American educational and cultural institutions generally. Capital funds have typically declined, and even where income has increased, purchasing power has been deeply eroded by inflation. Institution after institution has decreased its operating budget, in the process reducing this program and eliminating that. The Guggenheim Foundation has thus far avoided such steps, but the time is coming when we may have to consider curtailments. In 1968 we gave 322 fellowships for a total of \$2,434,000, an average of \$7,559. In 1977 we gave 337 fellowships for a total of \$4,997,500, an average of \$14,829. Despite major capital additions in the interval, we had to incur a considerable deficit in order to maintain roughly the same number of fellowships, because inflation forced us nearly to double our average grant. Since the Foundation's future, as well as present, usefulness has to be kept in mind, the continuation of our present level of giving could in time carry us beyond the bounds of prudence.

During its 53 years of existence the Foundation has been the single agency, whether public or private, to offer an uninterrupted program of fellowships for advanced workers in science, scholarship, and the arts. Yet at the same time it has always been part of a larger pattern of fellowship support; and we are aware that the national interest is served by the total resources avail-

able for senior fellowships, not by the contribution of a single organization. In resolving our present dilemma, then, an understanding of the trends in the general availability of senior fellowships is obviously to the point.

It should be noted at this juncture that fellowship assistance is provided at four levels in the American higher educational system: undergraduate, graduate, immediate postdoctoral, and advanced postdoctoral. The Guggenheim Foundation is concerned primarily with the last, the senior postdoctoral or mid-career award, though every year we make a number of grants to applicants of exceptional achievement who have only recently taken their doctoral degrees, just as we do to applicants of great distinction in their later years. In all of these categories funds are perennially in short supply, but provisions may well be least satisfactory at the senior postdoctoral level. For an individual to encompass a fellowship year in mid-career is a complex business. As a rule his institution must be asked not only to release him for the period but also to pay him a sabbatical stipend (usually 50% of his normal salary). He must then find the funds from other sources which he needs to make his year possible. Since at this point in his life he typically has a home to keep up and a family to support, and since a year away inevitably costs more than a year at home, his supplementary financial requirements are apt to be substantial. Recognizing this, the Foundation has tried to keep its awards at a level that will come close to bridging the gap between what a fellow can already count upon and what he must have in total.

A comprehensive survey of trends in the availability of senior fellowships would be complicated and time-consuming, but there is a short-cut at hand. As with college admissions, though not to nearly so large an extent, the senior fellowship scene is characterized by multiple applications. We ask our applicants each year to state what other fellowships they are seeking. Since we now receive well over 3,000 applications a year, and since we cover every field except the performing arts, it is reasonable to assume that nearly all significant programs appear in the answers we get to this question.

Let's look first, then, at the fellowship applications made elsewhere by applicants for Guggenheim fellowships in 1978 (Table I). There will be some surprise, I suspect, at the number of multiple applicants (1439) and applications (2338) on our base of 3135. When examined field by field, these figures reflect, not so much the presence or lack of enterprise of the workers therein as the number and size of fellowship programs available to them. In general the life sciences have for some time been in a more vigorous phase than the physical sciences, and granting organizations have duly recognized this fact. So it was that the 232 applicants for Guggenheim fellowships in mathematics and the physical sciences made 71 applications elsewhere (31%), while the 173 applicants in the life sciences made 134 applications elsewhere (77%). Though fellowship support for the arts (using the term to comprehend the fine arts, creative writing, music composition, photography and film, dance, and kindred fields) is increasing, it still falls far short of support for the academic disciplines. So the 1156 Guggenheim applicants in the social sciences and the humanities made 1259 applications elsewhere (109%), while the 1574 Guggenheim applicants in the arts made 874 applications elsewhere (56%).¹ Moreover, the grants for which creative workers may apply for the most part are much smaller than those open to scholars. It is true that far more rigorous standards of self-selection characterize academic applications (few patently unqualified scholars enter the major competitions), but nonetheless the disparity of opportunity between the two groups is striking.

¹ There follows the tally of these applications elsewhere, listing only the agencies in each field which received ten or more:

Mathematics, the physical sciences, engineering: Fulbright-Hays (25), National Science Foundation (16).

The life sciences: Macy Foundation (44), Fulbright-Hays (15), National Institutes of Health (15), National Science Foundation (12), American Cancer Society (12).

Psychology and the social sciences: National Endowment for the Humanities (67), Rockefeller Foundation (62), American Council of Learned Soci-

Table I. MULTIPLE APPLICATIONS, 1978
(Applications Elsewhere by Applicants for Guggenheim Fellowships)

Field	Applicants for Guggenheim Fellowships	Applicants to One Other Source	Two	Three	Four or More	Total Applicants to Other Sources	% of Guggenheim Applicants	Total Applications to Other Sources	% of Guggenheim Applications
9 Mathematics & the Sciences	405	102	35	7	3	147	36%	205	51%
Psychology & the Social Sciences	389	102	55	29	12	198	51%	350	90%
Humanities	767	227	161	80	26	494	64%	909	119%
Arts	1574	381	176	33	10	600	38%	874	56%
Totals	3135	812	427	149	51	1439	46%	2338	75%

Table II. MULTIPLE APPLICATIONS, 1967
(Applications Elsewhere by Applicants for Guggenheim Fellowships)

Field	Applicants for Guggenheim Fellowships	Applicants to One Other Source	Two	Three	Four or More	Total Applicants to Other Sources	% of Guggenheim Applicants	Total Applications to Other Sources	% of Guggenheim Applications
Mathematics & the Sciences	382	142	60	13	4	219	57%	318	83%
Psychology & the Social Sciences	178	60	27	9	4	100	56%	158	89%
Humanities	571	166	115	48	9	338	59%	579	101%
Arts	862	78	15	1	1	95	11%	115	13%
Totals	1993	446	217	71	18	752	38%	1170	59%

It is interesting to compare multiple application statistics for 1978 with those for 1967 (Table II). A 57% increase in the base of Guggenheim applicants during the intervening period has been accompanied by a more precipitate rise both in multiple applicants and multiple applications. Exceptions are provided by mathematics and the sciences, where a sharp decline is to be explained by the termination of National Science Foundation senior postdoctorals after 1971, and a sensational rise in the arts, which reflects the establishment of the National Endowment for the Arts and parallel Arts Councils in several states.

This growth in multiple applications should not be deplored, though an occasional comment to us that so-and-so "seems to apply for everything all the time" betrays an understandable weariness on the part of hard-pressed writers of letters of reference. Multiple applications, at any rate at their present level, cause no insurmountable difficulties to the granting organizations. Decisions in the bigger competitions are reached at intervals over a period of several months in the late fall and winter. Since an individual is not expected to hold two major fellowships concurrently, it is customary for him, after being notified that he has won an award, to withdraw any other applications he may have made. Nor is there much sense of competition among granting agencies. There are always more well qualified applicants than there are fellowships, and the relief provided by the withdrawal of applicants who accept other awards is anticipated and welcomed. Moreover, despite the additional paper work involved, the opportunity of applying to more than one organization obviously benefits the applicant. The various

eties (42), Fulbright-Hays (28), National Science Foundation (25), Woodrow Wilson Center (20), National Institutes of Health (12), Social Science Research Council (12).

The humanities: American Council of Learned Societies (267), National Endowment for the Humanities (237), Rockefeller Foundation (182), Fulbright-Hays (35), Woodrow Wilson Center (26), Social Science Research Council (14), Institute for Advanced Study, Princeton (12), Mellon Foundation (10).

The arts: National Endowment for the Arts (389), CAPS (164), Tiffany Foundation (103), Rockefeller Foundation (35), National Endowment for the Humanities (28), Fulbright-Hays (27), American Council of Learned Societies (18), American Academy in Rome (14).

senior fellowships programs have different standards and objectives, and their judges are impressed by different kinds of accomplishment and promise. It is sometimes true, therefore, that his application may possess an appeal for one organization which it would lack for another.

However, the phenomenon of multiple applications does suggest some caution in considering the statistics on senior fellowships which follow. The reader should keep in mind the extent to which applicants under various fellowship programs constitute a sort of stage army, that resource in operatic spectacles by which an exaggerated impression of size is created as the same people turn up, now here, now there, in the background. The demand for senior fellowships is clearly not as large as the application figures for individual programs might suggest.

III

Having identified the major senior fellowship programs, my next step was to ask their directors to provide, year by year since 1968, statistics concerning the number of grants made, the amount of money awarded, and the number of applications received. It was understood that data on applications would not be cited in relation to individual programs. The definition of "senior" was more than five years beyond the Ph.D. or over 35 years of age. No attempt was made to include granting agencies based outside the United States, though some, such as the Alexander von Humboldt Foundation in Germany and the International Union Against Cancer in Geneva, have generous programs. Usable replies were received from almost all of those queried, though occasionally only partial data were forthcoming.

Individual statistics for the major programs appear in the Appendix, but it will be enlightening to summarize these replies under three headings: senior Fellowships awarded by private foundations and learned societies (Table III); senior fellowships awarded by agencies of the federal government (Table IV); and

Table III
Senior Fellowships Awarded by Private Agencies, 1968-1977

Year	Applications	Fellowships	Amount of Money Awarded	Average
1968	3,184	465	\$ 3,073,882	\$ 6,610
1969	3,238	445	3,220,295	7,237
1970	3,436	472	3,947,102	8,363
1971	3,782	582	5,374,204	9,234
1972	4,190	626	5,868,084	9,374
1973	4,250	762	7,700,136	10,092
1974	4,568	823	9,757,450	11,856
1975	6,568	834	9,720,487	11,655
1976	5,883	793	9,739,393	12,282
1977	5,910	798	10,733,751	13,451

(The agencies included are The American Cancer Society, The American Council of Learned Societies, The Ford Foundation, The John Simon Guggenheim Memorial Foundation, The Josiah Macy, Jr. Foundation, The Rockefeller Foundation, and The Social Science Research Council. For individual statistics, see the Appendix.)

senior fellowships awarded by scholarly centers with residential programs (Table V). Some qualifications should be kept in mind when considering these statistics. Though the American Council of Learned Societies is a private agency, its senior fellowship program has recently been supported by the National Endowment for the Humanities, as well as by the Carnegie and Ford Foundations. The NEH's contribution between 1972 and 1977 totalled \$1,020,950. It should also be noted that the extensive grants to individuals by the National Institutes of Health (1,975 awards for \$27,300,000 in 1977) are not included in my tabulation. This agency has concentrated on other kinds of awards to individuals, such as immediate postdoctoral fellowships and "New and Young Investigator" grants to more advanced scientists which do not take the form of fellowships. Until 1973 it had a large program of "Special Fellowships" (752 awards for \$9,020,000 in 1972), but even here only a "small

Table IV
Senior Fellowships Awarded by Agencies of the Federal
Government, 1968-1977

Year	Applications	Fellowships	Amount of Money Awarded	Average
1968	1,826	203	\$2,641,480	\$13,012
1969	803	68	846,600	12,450
1970	988	163	2,082,772	12,778
1971	1,245	221	2,873,400	13,002
1972	1,395	205	2,856,138	13,932
1973	1,271	232	3,222,133	13,889
1974	1,469	245	3,299,137	13,466
1975	2,304	247	3,673,044	14,871
1976	1,835	245	3,576,755	14,599
1977	1,755	242	3,862,618	15,961

(Included are National Endowment for the Humanities Senior Fellows, National Science Foundation Senior Postdoctorals, and Senior Research Fellowships under the Fulbright-Hays Program. The financial figures concerning the Fulbright-Hays Program are estimated. For individual statistics, see the Appendix.)

fraction" of the grantees could be regarded as senior fellows.² On the other hand, less than justice is done to private support in that no statistics could be provided concerning the Ford Foundation's senior fellowships before 1973, which presumably totaled well over \$1,000,000 annually, as they have beginning with that year. Nor are the awards of the Wenner-Gren Foundation included, since they typically take the form of grants-in-aid, rather than full-year fellowships.

Overall these figures provide a striking demonstration of the usefulness of the dual system by which American educational and cultural endeavors are maintained, an example that is particularly interesting in that it runs counter to the general move-

² Letter from William H. Batchelor, Acting Research Manpower Officer, National Institutes of Health, 17 July 1978.

ment towards a larger proportion of public support and a smaller proportion of private support that has prevailed over the last 20 years. In the middle 1960s it appeared that the federal government intended to make senior fellowships its particular province, and private foundations were beginning to ask themselves whether their limited funds could not be better applied for other purposes. As it happened, however, the establishment in 1968 of the senior fellowships of the National Endowment for the Humanities was the last significant federal gesture. Then came the Tax Reform Act of 1969, a piece of legislation that reflected congressional revulsion against the political dissidence of that period, particularly as it was associated with the students and faculties of our colleges and universities. The mood of the time was epitomized, as I noted in an earlier *Report*, when "The Committee on Ways and Means of the 91st Congress included in its 'tentative decisions' on tax reform the statement that 'private foundations are to be denied the right to make grants directly to individuals.'" This provision was not enacted, though grants to individuals were hedged by complicated restrictions, but the senior fellowship programs supported by federal funds were harshly treated. The National Science Foundation's senior postdoctorals and the senior fellowships of the National Endowment for the Humanities were cancelled for 1969. The NSF's program was resumed in 1970 and 1971, after which it was dropped. The termination of the Special Fellowships program of the National Institutes of Health can perhaps be seen as a belated reflection of this state of mind. Even today the climate in Washington for such awards cannot be described as better than lukewarm, though there is surely a case at least for the resumption of NSF senior postdoctorals.

Fortunately, the support of private agencies did not waver. Indeed, over the past nine years several significant new mid-career fellowships have been established. After the election of Dr. John Knowles as president in 1972, the Rockefeller Foundation greatly increased its commitments to such awards, first in agricultural sciences, environmental affairs, and international relations, and latterly in the humanities. And Dr. John Bowers,

president of the Macy Foundation, instituted a program of senior fellowships in the medical sciences in 1973. Thus the chronicle of how senior fellowships have been financed over the past decade provides a telling case history of the benefits accruing from our plural arrangements for supporting enterprises in the public interest. No other nation in history has enjoyed anything approaching the fellowship system by which the United States supports advanced workers in scholarship and science, and when a passing mood of disillusionment in the public sector threatened this system, agencies in the private sector acted not merely to continue but actually to enlarge it.

Not yet mentioned is a particularly promising element in the country's pattern of senior fellowships, those offered by residential centers of scholarship. Table V covers only the four largest of these programs. The others (including the programs of the American Academy in Rome, the American Antiquarian Society, the Folger Shakespeare Library, the Huntington Library and Art Gallery, and the Newberry Library) would perhaps increase the 1977 totals in this category by 25 full-time fellows and \$250,000. Beginning this fall, moreover, these four large programs will be joined by a fifth, that of the National Center for the Humanities in North Carolina. The cash grants made by residential centers are of course only the beginning of their contributions to their fellows. In some instances the expenses they incur in meeting a fellow's needs may approach the amount of his fellowship grant. And of course the setting they provide is particularly conducive to successful scholarship, offering, as it does, distinguished colleagues as well as excellent library resources and in some instances (as at the Folger and the Huntington) unrivaled research materials in certain fields. Support for these programs, which comes chiefly from private sources, is as yet only a small fraction of the total provided for senior fellowships in general. It should obviously be expanded to the extent to which these centers can accommodate well-qualified visitors.

Table V

Residential Fellowships at Centers of Scholarship, 1968-1977

Year	Applications	Fellowships	Amount of Money Awarded ¹	Average
1968	134	158	\$1,395,738	\$ 8,834
1969	170	159	1,407,783	8,854
1970	271	190	1,349,676	8,652
1971	273	202	1,434,841	9,198
1972	355	189	1,379,746	8,733
1973	404	181	1,238,573	8,043
1974	522	193	1,354,192	8,625
1975	537	168	1,410,119	11,103
1976	425	157	1,709,920	12,481
1977	606	163	1,721,100	12,206

(The agencies included are The Center for Advanced Study of the Behavioral Sciences in Stanford, California, The Institute for Advanced Study in Princeton, The Woodrow Wilson International Center for Scholars in Washington, D.C., and The Radcliffe Institute in Cambridge. For individual statistics, see the Appendix. Data on applications were received only from The Radcliffe Institute and The Woodrow Wilson Center. The figures from The Institute of Advanced Study are estimated. The Woodrow Wilson Center was unable to supply financial information; their fellowships were accordingly omitted in the computation of average grants.)

IV

The comprehensive figures of Table VI (Senior Fellowships Awarded, 1968-1977) show a steady growth in applications, fellowships, and amount of money awarded until 1974, with some leveling off after that year. Comparing 1968 with 1977, we find a 61% increase in applications, a 43% increase in fellowships awarded, and a 60% increase in the average grant. In general these percentages are in line with the two most significant conditioning factors in the senior fellowship system, the size of faculties in American colleges and universities, and the

Table VI
(Combining Tables III, IV, and V)
Senior Fellowships Awarded, 1968-1977

Year	Applications	Fellowships	Amount of Money Awarded	Average
1968	5,144	826	\$ 7,111,100	\$ 8,609
1969	4,211	672	5,474,678	8,147
1970	4,695	791	7,379,550	9,329
1971	5,306	959	9,682,445	10,096
1972	5,940	989	10,103,968	10,216
1973	5,925	1,149	12,160,842	10,584
1974	6,559	1,225	14,410,779	11,764
1975	9,409	1,208	14,803,650	12,255
1976	8,143	1,175	15,076,068	12,788
1977	8,271	1,181	16,317,469	13,817

rate of inflation. During this decade the number of faculty members with the rank of instructor or above has risen from 428,000 to 657,000, an increase of 54%.³ Meanwhile, the increase in the consumer price index, the most accurate measure of inflation for a fellowship program, has been 74%.

However, there are two qualifications to be taken into account in weighing these figures. The first is an increasing proportion of senior faculty members, from among whom applicants for mid-career fellowships are drawn. On the basis of an American Council on Education faculty survey, the late Allar Cartter demonstrated that this shift in faculty composition was already under way between 1968 and 1972. During those years the proportion of full-time faculty members under 30 dropped by 10.5% in the humanities, 10.4% in engineering, mathematics, and the physical sciences; 9.1% in the social sciences, and 6.8% in the biological sciences. At the same time the proportion of

³ W. Vance Grant and C. George Lind, *Digest of Educational Statistics 1977-1978* (Washington: U.S. Government Printing Office, 1978), p. 98.

full-time faculty members with tenure increased by 13.3%, 11.8%, 9%, and 4.3% respectively in those fields.⁴ It is evident that this trend has continued at an accelerating rate since 1972.

The second qualification is the possibility of change in the availability of sabbatical leave on part salary. The financial squeeze of 1973 and the following years brought predictions of drastic reductions in this faculty benefit, but in the event it remained almost unaffected, despite legislative threats and administrative fiat. No doubt its preservation was due in part to the wisdom of responsible university officers, but there was also a practical motive for maintaining sabbaticals. When a professor took leave on half salary during this difficult period, he was often not replaced at all, and the other half of his salary could therefore be applied to other needs. Thus protected, sabbatical leaves on half salary, in the absence of which fellowship grants would have to be materially increased, seem likely to survive more or less intact.

Looking to the future, it would seem that for the next three years, no reduction in the demand for senior fellowships is likely, nor unhappily can much relief from inflation be counted upon. Beginning in 1982, however, the college age population will decline in proportion to the decline in live births which began in 1962 and continued precipitately for more than ten years.⁵ A comparable decline in the size of college and university faculties during the 1980s would seem to be inevitable.

What conclusions can be drawn from this survey? The directors of nearly all senior fellowship programs know that their limited funds force them to reject many well qualified applicants every year. As we have seen, however, some at least of these seekers for assistance find it elsewhere through multiple applications. Hence, the present senior fellowship system can perhaps be described as minimally adequate. For the next three years at least its cost will increase in proportion to inflation. Beginning in 1982, however, some reduction in the need for senior

⁴ *Ph. D.'s and the Academic Labor Market* (New York, 1976), p. 228.

⁵ Grant and Lind, p. 1.

fellowships can be expected as the size of college and university faculties declines.

Should adjustments in this system be made within fields? In the academic world mathematics and the physical sciences are the areas least well provided with senior fellowships. On the other hand, scientific research in general is supported with a generosity unheard of in the social sciences and the humanities, and scientists have other ways of financing their research. It would seem, indeed, from the relatively small number of applications in this field that the senior fellowship, though highly significant, is a resource on which they need to draw only occasionally. The National Institutes of Health, as was mentioned above, offer an illustration of this point.

This brings us to the arts. Of necessity the focus of this report has been chiefly on scientists and scholars. Fellowship assistance to artists in mid-career presents an even more complex problem. I have not attempted to collect statistics in this area but it may be noted that the Guggenheim Foundation has always given a substantial, and in recent years an increasing, percentage of its awards to artists, and that they have been helped intermittently by the Ford and Rockefeller Foundations among other granting agencies. But most assistance to artists today takes the form of grants-in-aid hardly comparable to the senior fellowships of the academic world. In 1977, for example, the awards to individuals by the National Endowment for the Arts and by New York State's Creative Artists Public Service Program (CAPS) ranged from a fourth to a half of the average grant to scientists and scholars. Yet, if the population of scientists and scholars from which applicants for senior fellowships are drawn exceeded two-thirds of a million in 1977, the population of artists (using the term as before to comprehend the fine arts, creative writing, music composition, photography and film, dance, and kindred fields) must be substantially larger.

However, this disparity of opportunity is not as inequitable as it seems at first glance. The United States has a vast institutional structure by which scientists and scholars after a fashion are sorted out. These persons are professionals who have typi-

cally committed themselves to full-time careers in higher learning, and usually they acquire a sense of when, if ever, in their development they stand some chance of success in applying for a competitive senior fellowship. A person is regarded as an artist, on the other hand, if he says he is an artist. And since he rarely receives much financial reward for what he does, of necessity he usually has some other way of making a living. The point at which he becomes a professional is hard to pin down. Because they exist in so amorphous a setting, the principle of self-selection with regard to fellowship applications operates far more sporadically among artists than among academics. One even hears occasionally, that competition based on merit is wrong, and that awards in the arts *should* be a lottery. So if the arts are the area least well provided for, they are also the area in which achievement is hardest to identify. The need is overwhelmingly there, but the sort of program that will meet it effectively isn't going to be easy to formulate.

V

The special concerns of the Guggenheim Foundation led me to this survey of the nation's system of senior fellowships, and I return to these concerns in my conclusion. By its unvarying concentration over 53 years on senior fellowships awarded on the basis of high accomplishment in the past and strong promise for the future, the Foundation may fairly be said to have set and maintained standards for such grants. Indeed, this record has caused its fellowships to be valued almost as much for the recognition that they bring, as for the money that accompanies them. Our fellows are typically leaders in their areas: masters, synthesizers, and innovators. It should be noted, moreover, that as such they are invaluable not only to their colleagues but also to neophytes. If an individual's "need to achieve" is at last being given due weight in judging applicants for graduate and post-doctoral awards, our fellowships help to identify the models that are required to foster this impulse.

Moreover, by its emphasis on tangible accomplishment, the Foundation has established another sort of claim for its awards. Our motto has always been "the tools to him that can handle them." Our fellows are among the guaranteed producers by whose efforts the country's educational and cultural apparatus justifies itself. They are workers who make vital contributions to the development of their chosen subjects through the research they conduct, the books they write, the music they compose, and the paintings and photographs they create.

Continuity of recognition for such persons is an essential part of the country's structure both for rewarding and for stimulating achievement. Our's is not an in-and-out operation. It cannot be preserved intact if the number of Guggenheim fellowships granted each year is allowed to drop too far. Our complex selection process is designed for finely-tuned choices among thousands of applicants. To permit the number of fellowships to decline to a point where only the obvious and inevitable candidates succeed (the "lead elephants," as a referee once called them) would soon defeat the Foundation's purpose. On the other hand, Senator Guggenheim planned an indefinite future for the Foundation. He designed it to help "an endless succession of scholars, scientists, and artists" by enabling them to accomplish the work of their own considered choice under the freest possible conditions. It would be irresponsible to jeopardize the Foundation's long-term usefulness by excessive spending in the present.

In seeking to resolve this dilemma we can hope that existing programs of senior fellowships in the private sector will expand and that new programs will be established. Though certain fields have been mentioned as standing in particular need of additional awards, any new program of substance will provide relief throughout the system and therefore to us. After the Macy Foundation began its awards in medical science, for example, we were enabled to make eight or ten additional awards a year in areas other than medicine because that many of the strongest applicants to us accepted Macy grants. Indeed, this sort of relief has become indispensable to the Foundation over the past ten

years. In 1968 we gave 39% of the senior fellowships awarded in the United States, in 1977 we gave 29%. Maintaining the earlier proportion would have been altogether beyond our resources. Above all, we can hope that the federal government, through its elected and appointed agents, will ask itself whether roughly one-fourth of the funds provided nationally for senior fellowships is the public sector's fair share.

It would seem sensible to continue at our present level of fellowship funding for the next few years in the expectation that during this period the expansion of other fellowship programs will counterbalance the gradually decreasing number of awards imposed upon us by inflation. If college and university faculties grow significantly smaller in the early nineteen-eighties, with a parallel decline in the demand for senior fellowships, the Foundation's financial problems might then be met without recourse to drastic program curtailment.

VI

In this volume are listed the Fellows appointed for 1977. There were 337 awards, as compared with 324 the previous year, and the average grant rose from \$14,076 in 1976 to \$14,829 in 1977. The total awarded was \$4,997,500. The leading universities with respect to Fellowships received were as follows:

University of California, Berkeley (16)	University of Illinois at Urbana-Champaign (7)
University of California, Los Angeles (12)	University of Michigan (6)
Princeton University (11)	Yale University (6)
University of Chicago (10)	University of Colorado (5)
Stanford University (10)	University of Rochester (5)
Massachusetts Institute of Technology (9)	University of California, San Diego (4)
Columbia University (8)	Duke University (4)
Harvard University (8)	New York University (4)
University of Pennsylvania (8)	University of North Carolina at Chapel Hill (4)
University of Wisconsin- Madison (8)	

GORDON N. RAY, *President*

August, 1978

APPENDIX
Senior Fellowships Awarded, 1968-1977, Individual Agencies

	Year	Fellowships	Amount of Money Awarded	Average
American Cancer Society	1972	2	\$ 25,900	\$12,950
	1973	8	133,700	16,713
	1974	2	67,500	33,750
	1975	3	54,400	18,133
	1976	3	62,300	20,767
	1977	11	228,400	20,764
American Council of Learned Societies	1968	38	\$296,250	\$ 7,796
	1969	39	293,485	7,525
	1970	63	583,750	9,266
	1971	64	614,130	9,596
	1972	85	887,925	10,446
	1973	86	928,062	10,791
	1974	78	855,800	10,972
	1975	83	918,025	11,061
	1976	83	971,750	11,708
	1977	71	859,500	12,106
Center for Advanced Study of the Behavioral Sciences	1968	44	\$535,676	\$12,174
	1969	47	573,700	12,206
	1970	44	534,621	12,150
	1971	43	602,441	14,010
	1972	45	531,606	11,813
	1973	44	389,015	8,841
	1974	42	494,164	11,766
	1975	38	561,493	14,776
	1976	44	799,370	18,168
	1977	48	805,000	16,771
The Ford Foundation [Though the Ford Foundation awarded senior fellowships before 1973, statistics concerning these grants became available only in that year when individuals were first entered into its computerized record system.]	1973	165	\$1,579,000	\$ 9,570
	1974	154	2,019,000	13,110
	1975	169	1,205,000	7,130
	1976	133	1,186,000	8,917
	1977	131	1,311,000	10,008

Appendix (continued)

	Year	Fellow- ships	Amount of Money Awarded	Average
Senior Fulbright-Hays Program, Research Fellowships [The financial figures are estimates.]	1968	112	\$1,394,400	\$12,450
	1969	68	846,600	12,450
	1970	65	809,250	12,450
	1971	117	1,456,650	12,450
	1972	113	1,406,850	12,450
	1973	131	1,630,950	12,450
	1974	143	1,780,350	12,450
	1975	132	1,643,400	12,450
	1976	117	1,456,650	12,450
	1977	117	1,813,500	15,500
John Simon Guggenheim Memorial Foundation	1968	322	\$2,434,000	\$ 7,559
	1969	293	2,381,050	8,126
	1970	311	2,783,250	8,949
	1971	382	4,058,500	10,624
	1972	394	4,018,000	10,198
	1973	364	4,095,600	11,252
	1974	369	4,466,000	12,103
	1975	330	4,475,500	13,562
	1976	324	4,560,500	14,076
	1977	337	4,997,500	14,829
Institute for Advanced Study [Detailed figures are not available, but about \$1,500,000 has been awarded each year be- tween 1968 and 1977 to about 150 fellows, about half of whom are holders of recent doc- toral degrees, about half senior scholars.]				

Appendix (continued)

	Year	Fellowships	Amount of Money Awarded	Average
Josiah Macy, Jr. Foundation	1974	38	\$ 697,200	\$18,347
	1975	30	574,790	19,160
	1976	32	557,640	17,426
	1977	30	608,170	20,272
	1978	25	583,710	23,348
National Endowment for the Humanities Senior Fellowships	1968	36	\$ 558,080	\$15,502
	1969	No Senior Competition		
	1970	40	584,522	14,613
	1971	50	727,750	14,555
	1972	92	1,449,288	15,753
	1973	101	1,591,183	15,754
	1974	102	1,518,787	14,890
	1975	115	2,029,644	17,649
	1976	128	2,120,105	16,563
	1977	125	2,049,118	16,393
	1978	132	2,304,915	17,461
National Science Foundation Senior Postdoctorals	1968	55	\$ 689,000	\$12,527
	1969	No Program		
	1970	58	689,000	11,879
	1971	54	689,000	12,759
Radcliffe Institute Fellowship Program	1968	39	\$ 110,062	\$ 2,822
	1969	37	84,083	2,273
	1970	37	65,055	1,758
	1971	38	82,420	2,169
	1972	38	98,140	2,583
	1973	35	99,558	2,845
	1974	40	110,028	2,751
	1975	14	98,626	7,045
	1976	18	160,500	8,919
	1977	18	166,100	9,228
	1978	18	178,080	9,893

Appendix (continued)

	Year	Fellowships	Amount of Money Awarded	Average
Rockefeller Foundation:	1969	1	\$ 21,950	\$21,950
Fellowships in Agricultural Sciences, Environmental Affairs and International Relations	1970	1	11,860	11,860
	1971	3	40,766	13,589
	1972	2	50,800	25,400
	1973	20	217,838	10,892
	1974	31	720,253	23,234
	1975	41	912,320	22,252
	1976	48	915,557	19,074
	1977	61	1,283,564	21,042
Rockefeller Foundation:	1975	35	\$ 582,546	\$16,644
Fellowships in the Humanities	1976	35	590,620	16,875
	1977	35	583,840	16,681
	1978	34	597,725	17,580
Social Science Research Council	1968	105	\$ 396,582	\$ 3,777
	1969	112	523,810	4,677
	1970	97	568,242	5,858
	1971	133	660,808	4,968
	1972	143	885,459	6,192
	1973	120	745,936	6,216
	1974	151	931,697	6,170
	1975	143	997,906	6,978
	1976	135	895,026	6,630
	1977	123	847,892	6,893
Woodrow Wilson International Center for Scholars	1970	34		
	1971	46		
	1972	31		
[No financial information was provided.]	1973	27		
	1974	26		
	1975	41		
	1976	20		
	1977	22		